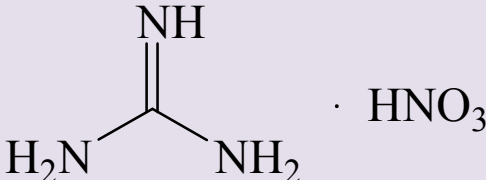
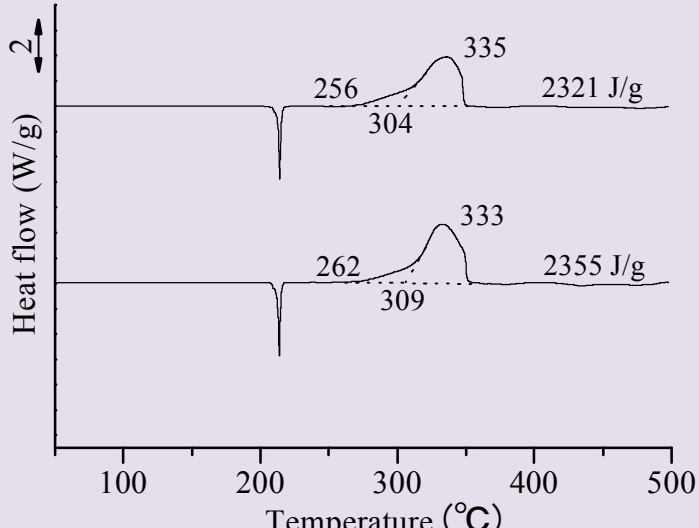
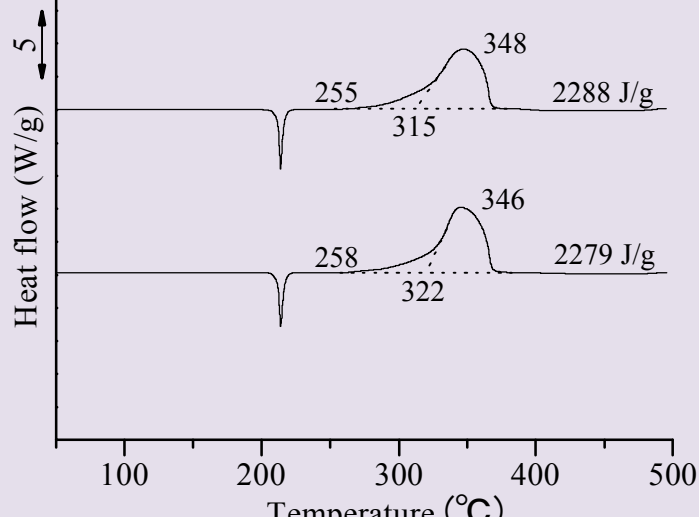
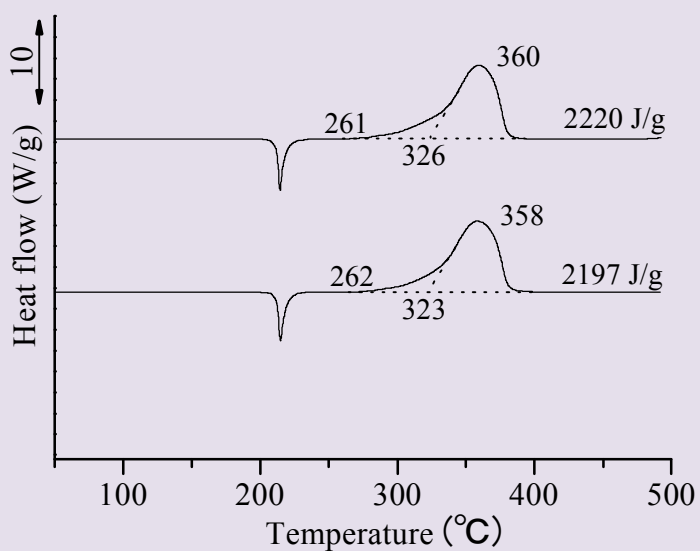


Guanidine nitrate	$\text{CH}_6\text{N}_4\text{O}_3$ GUN
	DSC device: SII DSC 7020 SII Nano Technology Inc. dT/dt: 2, 5, 10, 20 K/min Atmosphere: Air Vesel: pressure vessel (SUS) SII Nano Technology Inc. Sample: TGI (≥ 98.0%)
a) 2 K/min <span style="float: right;">TGI: 東京化成工業株式会社</span>	
 <div style="float: right; margin-top: 20px;">                 &lt;Average&gt;  <math>T_a</math>: 259 °C  <math>T_o</math>: 307 °C  <math>T_{top}</math>: 334 °C  <math>Q_{DSC}</math>: 2338 J/g             </div>	
b) 5 K/min	
 <div style="float: right; margin-top: 20px;">                 &lt;Average&gt;  <math>T_a</math>: 257 °C  <math>T_o</math>: 319 °C  <math>T_{top}</math>: 347 °C  <math>Q_{DSC}</math>: 2284 J/g             </div>	

c) 10 K/min



<Average>

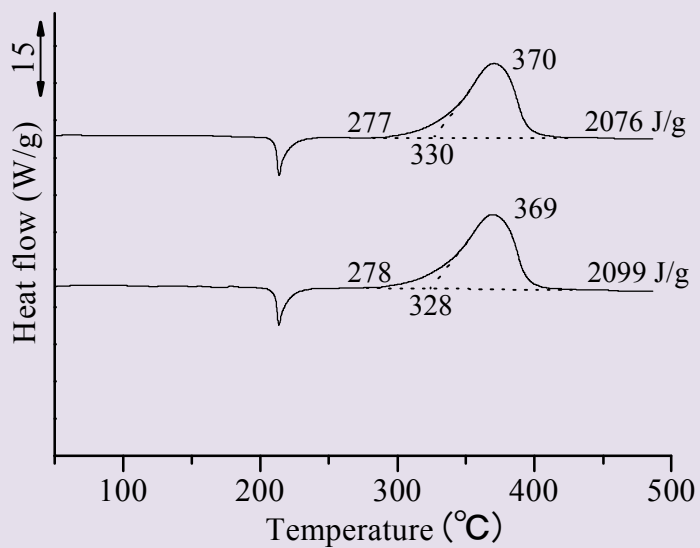
$T_a$  : 262 °C

$T_o$  : 325 °C

$T_{top}$  : 359 °C

$Q_{DSC}$  : 2209 J/g

d) 20 K/min



<Average>

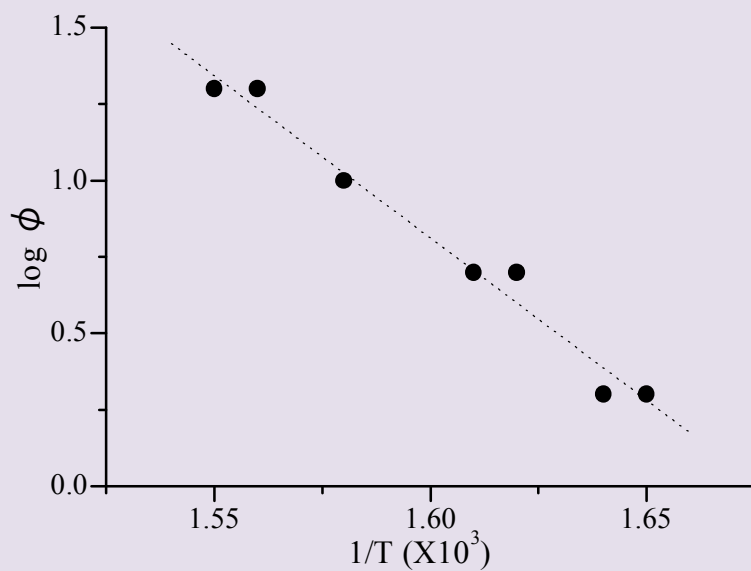
$T_a$  : 278 °C

$T_o$  : 329 °C

$T_{top}$  : 370 °C

$Q_{DSC}$  : 2088 J/g

## ASTM PLOT



$\Delta E$  : 198 kJ/mol

A :  $1.41 \times 10^{35}$

r : -0.9886

Heat rate $\phi$ (K/min)	$T_{\text{peak}}$ (°C)	$T_m$ (K)	$1/T_m \cdot 10^3$	$\log \phi$
2	335	608	1.64	0.301
	333	606	1.65	0.301
5	348	621	1.61	0.699
	346	619	1.62	0.699
10	360	633	1.58	1.00
	358	631	1.58	1.00
20	370	643	1.55	1.30
	369	642	1.56	1.30